

Abstract of the Disclosure:

Today's wind and water turbines employ a variety of solutions to insure a constant operating speed (RPM). These include passive stall, active stall, pitch control and guide vanes. Each of these techniques effectively avoids capture of additional energy in an increasing flow so that rpm's can remain constant. A constant operating speed is necessary for 60 and 50 cycle environments on and off shore. Wind (and water) speeds above a given range are taken out of play in that these solutions do not transform additional energy at higher flow speeds. In a wind assumption the blades are pitched such that less surface is presented to an increasing wind. In a water assumption guide vanes are further closed to deflect the increased flow of water.

The WT/CWC is a new and unique means of controlling operating speed in wind and water turbines. The ability to dynamically change a centrifugal weight by means of jackscrew and guide to control rpm's does permit capture of additional kinetic energy and its transformation to a mechanical force that, in turn, generates electricity. Rpm's are maintained while rolling torque on the low speed shaft increases. As this rolling torque increases additional generator(s) are brought into play at appropriate cut-in intervals.